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EMPIRICAL TEST OF THE INTEGRATION POTENTIAL OF UKRAINE'S COMPETITIVE POWER IN THE EVENT OF POSSIBLE ACCESSION TO THE EU

Modern integration priorities for Ukraine necessitate defining and measuring its competitive power (CP) as an EU candidate country. One of the key objectives of competitive policy is identifying the factors that can enhance Ukraine's CP, thereby strengthening its European integration potential. The study aims to develop a model that comprehensively examines the interdependence and interaction of parameters and components of Ukraine's CP across global, regional, and national dimensions in the event of its potential accession to the EU. To achieve this goal, the study utilizes a special statistical indicator, Spearman's rank correlation coefficient, as part of the regression-correlation analysis framework. The article provides an assessment of three main aspects: (1) Ukraine's competitive potential in both global and regional economic systems; (2) dependencies within datasets representing ratings, as well as the variance in ranks of factor values (one of the components of the global CP index) and performance characteristics; (3) the reserve competitive advantages of Ukraine, which are evaluated by comparing actual and potentially possible values of the rank correlation coefficients of the components of the global CP index and its integral value. The calculation results indicate that Ukraine's CP at the time of

potential EU participation is low, primarily due to Ukraine lagging behind the EU members across a multitude of factors. This underscores the necessity for not only formal accession and legal unification but also a series of comprehensive reforms to attain tangible competitive advantages from participation in this integration association.

Keywords: competitive power, integration potential, European Union, correlation, association
JEL classification: ***F02, F14, F15, F55, E02, C51, C82***

Сучасні інтеграційні пріоритети України вимагають конкретного визначення та постійної оцінки її конкурентної сили як країни-кандидата на вступ до Європейського Союзу. Одним із пріоритетів конкурентної політики є визначення чинників підвищення конкурентоспроможності України, які б були здатними посилити євроінтеграційний потенціал країни. Метою дослідження є розробка моделі комплексної взаємозалежності та взаємодії параметрів і складових глобального, регіонального та національного вимірів конкурентоспроможності України, прогнозування зміни їх структури в разі потенційного вступу України до Європейського Союзу. Для досягнення даної мети було застосовано регресійно-кореляційний аналіз, серед інструментарію якого використано спеціальний статистичний показник – коефіцієнт рангової кореляції Спірмена. У результаті проведеного дослідження надано оцінку: (1) конкурентної сили України в загальній глобальній та певних регіональних економічних системах; (2) взаємозалежності окремих параметрів системи рейтингування конкурентоспроможності та факторів, що впливають на формування та підвищення конкурентної сили; (3) резервних факторів конкурентних переваг України, оцінка яких здійснена шляхом порівняння фактичних та прогнозованих значень коефіцієнтів рангової кореляції складових індексу глобальної конкурентної сили. Результати розрахунків свідчать про те, що конкурентна сила України напередодні її вступу до Європейського Союзу є дуже низькою, що пояснюється об'єктивним відставанням України від членів ЄС за більшістю досліджуваних факторів. Тому для отримання реальних конкурентних переваг від участі України в даному інтеграційному об'єднанні окрім формального приєднання та уніфікації правових норм необхідна низка глобальних реформ.

Ключові слова: конкурентоспроможність, інтеграційний потенціал, Європейський Союз, кореляція, асоціація
JEL classification: ***F02, F14, F15, F55, E02, C51, C82***

1. Introduction

Interstate integration associations act as subjects of competitive power, therefore participation in them can increase the competitive potential of each member state. To assess the competitive potential of Ukraine in the global and regional economic systems, it is important to take into account not only the global ratings of Ukraine's competitive power and their components, but also the ratings of Ukraine in regional economic associations and its potential for competitive advantages. An important prerequisite for addressing this issue is studying the peculiarities of how the rating of global competitive power is formed by member countries of various interstate integration associations. The components of the global competitiveness index of individual member countries within interstate integration associations, as well as the composite indices of the leading associations, could also be significant subjects of investigation. However, to determine the competitive potential of participation in a particular association, it is equally important to assess how the rankings of member countries within a certain association correlate with both the index of global competitive power and its components. Such an analysis is necessary to understand whether the assessment of global competitiveness of a particular country result from equally strong (medium, weak) evaluations for components or from averaging relatively high evaluations for some components of the rating and low evaluations for others. In other words, the degree of such coherence can also be interpreted as the harmonious development of individual member countries within a specific international integration association.

2. Literature Review. The study of the competitive potential of Ukraine as a candidate country for membership in the European Union necessitates the development of a model of complex interdependence and interaction of parameters and components of global, regional and national dimensions of competitive power. Academic studies conducted abroad focus on researching the competitive power levels of the European Union member states. Ahmed Aytekin, Fatih Ecer, Selcuk Korucuk and Caglar Karamasa [1] measure the global innovative and competitive efficiency of the EU member states and candidate countries. Sefer Sener and Deniz Delican (2019) [2] determine the causal relationship between innovation, competitiveness, and foreign trade. Paola Annoni and Lewis Dijkstra (2019) [3] investigate the spatial variations of regional competitiveness of the EU member states compared with the group average. Marcin Szczepański (2019) [4] considers the evolution of European competition policy, which covers all forms of trade-competitive relations. John Gibert and Eva Muchova (2018) [5] analyze the export competitiveness of Central and Eastern Europe after EU enlargement. Ivan Arribas, Sami Bensassi, Emili Tortosa-Ausina (2020) [6] quantify the processes of regional trade agreements enhancing or hindering global trade. Eleonora Cutrini (2019) [7] explores regional differences in the European Union. Mihaela Simionescu, Elena Pelinescu, Samer Khouri and Svitlana Bilan [8] highlight the central competitiveness of the EU member states. Jan in 't Veld (2019) [9] examines the macroeconomic benefits of the EU single market by simulating a scenario where tariffs are reintroduced. Olena Pryiatelchuk, Maryna Hrysenko and Ludmila Shvorak (2019) [10] investigate the modeling of public socio-economic systems in the countries of the European region. Nauro Campos, Fabrizio Coricelli and Luigi Moretti (2019) [11], using a synthetic control method, identify the growth effects of EU membership. Vasilios Plakandaras, Aviral Kumar Tiwari, Rangan Gupta, Qiang Ji (2020) [12], discuss future economic climate across the EU. The European Court of Auditors (2018) [13] consider competition rules that are extremely important for the proper functioning of the EU single market. Toon Vandyck, Matthias Weitzel, Krzysztof Wojtowicz, Luis Rey Los Santos, Anamaria Maftei and Sara Riscado (2021) [14] examine the interdependence of climate policy, competitiveness and income distribution based on macro-micro dimensions for eleven EU member states. M. Gouveia, C. Henriques and P. Costa (2021) [15] evaluate the economic efficiency of structural funds, which are used in the competitiveness of SMEs in different regions of the European Union. Agnieszka Karman and Mieczyslaw Pawlowski (2022) [16] developed a model for assessing the competitiveness of the circular economy in the EU member states. Noha Ghazy, Hebatallah Ghoneim and Guenter Lang (2022) [17] analyze the relationship between entrepreneurship, productivity and digitalisation for the 27 member states of the European Union. Mohd Aisaleh and Abdul Samad (2021) [18] identify the impact of global competitiveness markers on industry sustainable development practices. Lucjan T. Orlowski (2020) [19] argues that more profound integration of EU markets is needed to accelerate economic growth. Nebojsa Stojcic, Perica Vojinic, Zoran Aralica (2018) [20], using the synthetic control method, studied the impact of trade liberalization and export changes in the new EU member states. Yet, none of the economists has devised a model for assessing the competitive potential of a candidate country (such as Ukraine in our study) for joining the European Union and the potential competitive advantages that membership can provide.

3. Purpose

Given the relevance and practical significance of the research topic, the study's purpose was determined: to develop a model that explores the complex interdependence and interaction of parameters and components across global, regional, and national dimensions of Ukraine's competitive power in the event of its potential participation in the EU.

4. Methods

To achieve this goal, the authors utilized a specific statistical indicator

designed for assessing dependencies within aggregates of data, particularly ratings, using regression-correlation analysis. Spearman's rank correlation coefficient was employed to evaluate differences in the ranks of factor values (in this case, components of the global competitive power index such as institutions, infrastructure, ICT implementation, etc.) and effective indicators (in this case, the global competitive power index itself). Spearman's rank correlation coefficient *(p)* can be calculated using the formula:

$$p = 1 - \frac{6 \cdot \sum_{i=1}^{n} d_i^2}{n \cdot (n^2 - 1)}, \qquad (1)$$

where n – sample size (number of countries that are members of a certain international integration association);

$d_i = x_i - y_i$ – the difference in the ranks of factor (x_i) and result (y_i) features.

However, if the sample is characterized by the presence of matching ranks, one can use the adjusted formula:

$$r_s = \frac{\frac{1}{6}(n^3 - n) - \sum_{i=1}^{n} d_i^2 - T_x - T_y}{\sqrt{\left[\frac{1}{6}(n^3 - n) - 2 \cdot T_x\right] \cdot \left[\frac{1}{6}(n^3 - n) - 2 \cdot T_y\right]}} \qquad (2)$$

where

$$T_x = \frac{1}{12} \sum_{t=1}^{m_x} (n_t^3 - n_t);$$

$$T_y = \frac{1}{12} \sum_{l=1}^{m_y} (n_l^3 - n_l);$$

m_x – the number of groups of matching ranks in the sequence x_i;

n_t – the number of matching ranks in the group with the number t, $t = \overline{1, m_x}$;

m_y the number of groups of matching ranks in the sequence y_i;

n_l – the number of matching ranks in the group with the number l, $l = \overline{1, m_y}$.

5. Findings

As a software environment for conducting the required calculations, it is advisable to choose a spreadsheet processor like Microsoft Excel, which offers several useful features for computing Spearman's rank correlation coefficient. The first step in calculating Spearman's rank correlation coefficients involves forming the necessary information base. To achieve this, an array of data indices representing the global competitiveness of the EU member states, along with the 12 components of this index, is created on a separate worksheet within the Microsoft Excel workbook (Table 1). The second step entails transferring the values of the indices for each country and their components to their corresponding ranks within the framework of a specific international integration association.

The significance of this step is underscored by two circumstances. Firstly, it's imperative to transform the indicators from indices (where a larger numerical value corresponds to a better situation) into ranks (where a smaller numerical value signifies a better situation). Secondly, the indices are computed for a global sample encompassing all countries, and it's necessary to rank countries within their respective populations (specific integration association). To accomplish this, the "Rank and Percentile" data analysis tool integrated into Microsoft Excel proves convenient. Technically, this is achieved by invoking the appropriate dialog box and filling in the necessary parameters. There are several options for presenting the results; the chosen approach involves displaying the calculation results on the current worksheet. Consequently, the rank values and percentiles for each indicator are automatically generated. For subsequent analysis, only the rank data is essential. The only challenge lies in the fact that the data for each indicator is presented sorted by decreasing rank for that specific indicator. To ensure the accuracy of further calculations, it is imperative to arrange them in the order of country placement, so that each row contains data corresponding to one country.

The third step involves calculating the squared difference in ranks for each of the member countries. Let's illustrate this with an example of such a calculation for the first of the 12 factor characteristics - institutions. It's important to note that the resulting indicator will remain consistent - it's an index of global competitive power. The results of the calculation are presented in Table 2.

Table 1

Global competitive power of the EU member states

The EU member states	Institutions	Infrastructure	Implementation of ICT	Macroeconomic stability	Health	Qualification	Markets of goods and services	Labour market	Financial system	Market size	Business- dynamism	Innovative potential	Total estimation
Austria	74	89	66	100	95	79	66	67	75	65	69	74	77
Belgium	69	87	67	100	93	79	63	64	79	69	74	71	76
Bulgaria	57	71	73	90	78	68	56	65	60	55	62	45	65
Croatia	52	78	61	90	86	63	53	56	62	50	55	38	62
Republic of Cyprus	64	75	62	90	96	72	61	66	58	40	66	46	66
Czech Republic	61	84	68	100	86	73	57	63	68	65	69	57	71
Denmark	77	87	83	100	93	86	67	78	87	60	80	76	81
Estonia	70	76	79	100	84	79	62	70	65	43	70	52	71
Finland	81	83	80	100	93	86	66	72	90	58	78	76	80
France	70	90	74	100	99	72	62	63	86	82	71	77	79
Germany	72	90	70	100	92	84	68	73	79	86	80	87	82
Greece	51	78	65	75	94	70	54	53	49	60	59	45	63
Hungary	56	81	64	90	81	69	52	59	61	63	58	47	65
Ireland	73	77	67	100	95	77	61	76	69	65	77	66	75
Italy	59	84	64	85	100	70	62	57	68	79	66	66	72
Latvia	59	76	80	100	77	76	59	67	57	44	66	42	67
Lithuania	63	77	82	100	76	76	56	69	58	51	66	47	68
Luxembourg	76	85	78	100	93	79	68	74	87	50	66	68	77
Malta	61	75	75	100	93	72	60	67	72	37	59	50	69
Netherland	79	94	76	100	94	85	70	75	85	74	81	76	82
Poland	56	81	65	100	84	72	58	60	64	74	62	50	69
Portugal	54	84	71	85	94	70	60	63	70	60	70	54	70
Romania	58	72	72	90	77	62	55	62	57	65	60	42	64
Slovakia	56	79	69	100	82	70	53	61	64	58	63	46	67
Slovenia	63	78	69	100	90	75	62	64	64	48	70	58	70
Spain	65	90	78	90	100	72	61	61	77	77	67	64	75
Sweden	75	84	88	100	97	84	66	69	88	65	79	79	81
Great Britain (Brexit in 2020)	74	89	73	100	92	82	65	75	88	82	77	78	81

Source: compiled by the authors based on 11. Zayats, O. (2020), "The EU Global Competitive Force Index. Economic Annals-XXI", Vol. 183, Issue 5-6, pp. 17-25. https://doi.org/10.21003/ea.V183-02 [21]

Table 2

Calculation of the squares of the difference in the ranks of the EU countries according to the indicators "index of institutions" and "index of global competitiveness"

№	Country	Institutions		Global Competitive Power		Squares of the difference in the ranks (d_i^2)
		index	rank	index	rank	
1	Austria	74	6	77	8	4
2	Belgium	69	12	76	10	4
3	Bulgaria	57	23	65	24	1
4	Croatia	52	27	62	28	1
5	Republic of Cyprus	64	15	66	23	64
6	Czech Republic	61	18	71	14	16
7	Denmark	77	3	81	3	0
8	Estonia	70	10	71	14	16
9	Finland	81	1	80	6	25
10	France	70	10	79	7	9
11	Germany	72	9	82	1	64
12	Greece	51	28	63	27	1
13	Hungary	56	24	65	24	0
14	Ireland	73	8	75	11	9
15	Italy	59	20	72	13	49
16	Latvia	59	20	67	21	1
17	Lithuania	63	16	68	20	16
18	Luxembourg	76	4	77	8	16
19	Malta	61	18	69	18	0
20	Netherland	79	2	82	1	1
21	Poland	56	24	69	18	36
22	Portugal	65	13	70	16	9
23	Romania	58	22	64	26	16
24	Slovakia	56	24	67	21	9
25	Slovenia	63	16	70	16	0
26	Spain	65	13	75	11	4
27	Sweden	75	5	81	3	4
28	Great Britain (Brexit in 2020)	74	6	81	3	9
Sum of the squares of the difference in the ranks						384

Source: compiled by the authors based on the data from Table 1.

The squares representing the differences in ranks for each of the EU countries are computed in the final column of Table 2. The last row of this table displays the total sum of squares of the differences in ranks for all countries. A comparable process is then carried out for the remaining 11 components of the global competitive power index.

The fourth step involves calculating Spearman's rank correlation coefficient. This calculation will be demonstrated using the factor characteristic "index of institutions" as an example. To accomplish this, the value of the sum of the squares of the differences in ranks from the table should be inserted into the numerator of the formula (1). As a result:

$$p = 1 - \frac{6 \cdot 384}{28 \cdot (28^2 - 1)} = 1 - \frac{2304}{21924} \approx 0{,}895 \quad (3)$$

To calculate the adjusted index of rank correlation, according to formula (2), one should compute the values Tx and Ty. For the indicators "index of institutions" and "index of global competitive power", these values are 5 and 6, respectively. Subsequently, these values are inserted into the formula (2):

$$r_s = \frac{\frac{1}{6}(28^3 - 28) - 384 - 5 - 6}{\sqrt{\left[\frac{1}{6}(28^3 - 28) - 2 \cdot 5\right] \cdot \left[\frac{1}{6}(28^3 - 28) - 2 \cdot 6\right]}} \approx 0{,}89$$ (4)

Hence, for the indicators "index of institutions" and "index of global competitive power", the values of the Spearman rank correlation coefficient and the adjusted rank correlation index match to the third decimal place. However, in subsequent calculations, the adjusted rank correlation indicators will be utilized.

The fifth step involves assessing the statistical significance of the calculated coefficient. To do this, the computed value of the Spearman's rank correlation coefficient is compared with the tabulated critical value for a known sample size (n) and significance level (α). Taking the significance level at 0.01 corresponds to a probability of error within 1% when interpreting the relationship as significant. In this case, for a sample size of 28 observations, the tabulated value of the Spearman's coefficient is 0.441. As the estimated value of Spearman's rank correlation coefficient (0.895) exceeds the tabulated value (0.441), the relationship can be considered statistically significant.

The procedure of the third, fourth and fifth steps is repeated for the remaining eleven factorial features. The summarized results of calculating the Spearman's coefficients are presented in the Table 3.

According to Table 3, for the majority of the components of the global competitive power index, the estimated values of the Spearman's rank correlation coefficients surpass the tabulated value. The average value of Spearman's rank correlation coefficients for all 12 components is also quite high, approximately 0.687. This could be interpreted as an indication of the harmonious composition of the countries within this association, which includes clear leaders dominating both the overall value of the global competitiveness index and its components, as well as less developed countries. However, one parameter stands out as an exception - macroeconomic stability. The calculated value of Spearman's rank correlation coefficient for this indicator is relatively low, significantly lower than the critical table value. This indicates that the rankings of the EU countries based on the "macroeconomic stability" parameter differ significantly from their rankings based on the value of the global competitive power index.

The analysis of Spearman's rank correlation coefficients for the EU member states enabled the assessment of certain trends that characterize the strong positions of the international integration association.

The next step is to analyze the issue of assessing Ukraine's global competitive power in the event of its participation in the EU. The key to answering this question lies in addressing the methodological problem of choosing a baseline for comparing the impact of leveraging Ukraine's competitive advantages within the framework of EU unification. Two options can be considered for such an assessment. The first option is the actual average value of the Spearman's

Table 3

Spearman's rank correlation coefficients of components of the index of global competitive power for the EU member states

Component	Institutions	Infrastructure	Implementation of ICT	Macroeconomic stability	Health	Qualification	Markets of goods and services	Labour market	Financial system	Market size	Business-dynamism	Innovative potential	Average
Spearman's coefficient for EU	0,89	0,76	0,44	-0.03	0,48	0,85	0,90	0,68	0,91	0,50	0,88	0,97	0,687

Source: calculated by the authors based on the data from Table 1.

coefficients for the EU without the participation of Ukraine (as listed in Table 3), which is approximately 0.7. The second option involves calculating a new estimated value of the Spearman's coefficients for the EU with Ukraine's participation in this association. Despite potential arguments in favor of the first approach, practical focus should be directed towards the second one due to the specific relationship between Spearman's coefficients and the number of objects in the studied sample. Specifically, as the number of objects in the sample increases, the value of this indicator, all else being equal, tends to decrease. Consequently, there is no single criterion level of significance for this indicator; instead, special tables have been developed, with one of the parameters precisely being the sample sizes.

So, let's examine the correlation coefficients of the Spearman's ranks of the components of the global competitive power index for the EU member states, taking into account the accession of Ukraine (Table 4).

Comparing the actual values of the correlation coefficients of the Spearman's ranks of the components of the global competitive power index for the EU member states, as presented in Table 2, with the hypothetical values under the conditions of Ukraine's accession, as shown in Table 4, reveals a decrease in the latter case for individual components. The most significant decrease is observed in the component "market size". This discrepancy reflects the objectively existing disparities between Ukraine's overall low rating and its rating based on market size, as Ukraine is not an absolute outsider even among the EU countries in terms of market size. However, on average, the Spearman rank correlation coefficients increase.

For a clearer indication of Ukraine's potential, it is informative to refer to the calculation results in Table 5.

Table 4

Correlation coefficients of the Spearman's ranks of the components of the global competitive power index for the EU member states (in the case of the accession of Ukraine)

Component	Institutions	Infrastructure	Implementation of ICT	Macroeconomic stability	Health	Qualification	Markets of goods and services	Labour market	Financial system	Market size	Business-dynamism	Innovative potential	Average
Spearman's rank coefficient EU (with Ukraine)	0,91	0,79	0,50	0,09	0,53	0,84	0,89	0,69	0,92	0,47	0,89	0,97	0,708

Source: calculated by the authors based on the data from Table 1.

Table 5

Deviation of the ranks of the components of the global competitive power index from the integral value of the index for Ukraine (in case of its joining the EU)

Component	Institutions	Infrastructure	Implementation of ICT	Macroeconomic stability	Health	Qualification	Markets of goods and services	Labour market	Financial system	Market size	Business-dynamism	Innovative potential
Deviation of the ranks for Ukraine	0	0	0	0	0	8	8	7	0	15	1	1

Source: calculated by the authors based on the data from Table 1.

According to the results of the calculations given in the Tabl. 5, for factors such as "institutions", "infrastructure", "ICT implementation", "macroeconomic stability", "health" and "financial system", the deviation of ranks is zero. This means that both in terms of the overall value of the integral index and its specified components, Ukraine is an absolute outsider among the EU countries. Therefore, there are no unrealized reserves for increasing the integral index of global competitive power in these areas.

The greatest deviation is observed for four factors: "market size", "qualification", "goods and services market", and "labor market". Therefore, noticeable reserves exist in these areas.

The formal entry of Ukraine into the group of the EU countries increases the average value of the Spearman rank correlation coefficients of the components of the global competitive power index for the EU member states from 0.687 to 0.708. Based on this, it is possible to propose an analytical indicator for quantitative assessment of the potential for growth of the EU's competitive power due to the realization of reserves of competitive advantages of Ukraine (CAR), which is calculated according to the formula:

$$CAR = \frac{\frac{1}{m}\cdot\sum_{j=1}^{m} p_j^t - \frac{1}{m}\cdot\sum_{j=1}^{m} p_j^f}{\frac{1}{m}\cdot\sum_{j=1}^{m} p_j^f} = \frac{\sum_{j=1}^{m} p_j^t - \sum_{j=1}^{m} p_j^f}{\sum_{j=1}^{m} p_j^f} \quad (5)$$

where m – the number of components of the integral index of competitive power.

p_j^f – the actual value of the Spearman coefficient for the jth component of the integral index of competitive power;

p_j^t – the potentially possible value of the Spearman coefficient for the EU based on the jth component of the integral index of competitive power in the case of realization of Ukraine's competitive advantage reserves.

To achieve this, we will compute the adjusted values of Spearman's rank correlation coefficients (Table 6).

If these reserves are implemented, the average value of the correlation coefficients of the Spearman ranks of the components of the global competitive power index for the EU member states (assuming Ukraine's accession) will increase from 0.708 to 0.716. By substituting these values into formula (5), we can calculate the assessment of Ukraine's competitive power within the EU (CAR_{EU}):

$$CAR_{EU} \quad ІЗК_{ЄС} = \frac{0{,}708 - 0{,}687}{0{,}687} \approx 0{,}029 \quad (6)$$

Thus, the potential for growth of global competitive power under the condition of Ukraine's participation in the EU is 2.9 %. Such a low value is explained by the fact that Ukraine is an outsider among the EU countries according to most of the components of the index of global competitive power.

6. Discussions & Conclusions

Summarizing the results of the conducted analysis, it is evident that the assessment of Ukraine's competitive power in the case of

Table 6

Spearman's correlation coefficients of the ranks of the components of the global competitive power index for the EU countries (assuming Ukraine implements the reserves to increase the integral index of global competitiveness)

Component	Institutions	Infrastructure	Implementation of ICT	Macroeconomic stability	Health	Qualification	Markets of goods and services	Labour market	Financial system	Market size	Business- dynamism	Innovative potential	**Average**
EU Spearman coefficient (with Ukraine)	0,91	0,79	0,50	0,09	0,53	0,86	0,91	0,70	0,92	0,53	0,89	0,97	0,716

potential participation in the EU union is only 2.9%. The low value of this indicator reflects Ukraine's objective lag behind the EU member states in most factors, with this lag being absolute in half of them (meaning Ukraine's ratings are worse than those of all other EU countries). Therefore, the formal accession of Ukraine to the EU without actual strengthening of its positions in terms of the components of Ukraine's global competitive power will not lead to a significant increase. This underscores the importance of reforms as a necessary condition for the successful European integration of Ukraine. Meanwhile, the most important factors for strengthening Ukraine's European integration potential are "institutions", "infrastructure", "ICT implementation", "macroeconomic stability", "health", and "financial system".

As a result of the research, the competitive potential of Ukraine in the global and regional economic systems was evaluated, considering not only the global ratings of Ukraine's competitive power and their components, but also Ukraine's ratings in the European Union and the potential competitive advantages that membership in it can provide. The authors' calculations and interpretation of the indicators are based on the premise that the harmonious development of member countries within a particular international integration association is linked to the consistency of the ranking ratio of member countries according to the global competitive power index on one hand, and other components on the other hand. This enabled the researchers to determine whether the assessment of the global competitive power of a particular member state resulted from: a) equally strong (medium, weak) evaluations by components; b) averaging high scores for some components of the rating and low scores for others. The authors employed a special statistical indicator, Spearman's rank correlation coefficient, within the framework of regression-correlation analysis, which allowed for the assessment of dependencies in data aggregates representing the ratings, as well as the difference in the ranks of factor values (one of the components of the global competitive power index) and performance characteristics. The results of the calculation of the analytical indicator for the quantitative assessment of the potential growth of the competitive power of the regional economic association due to the realization of Ukraine's competitive advantages showed that Ukraine's competitive strength in the event of potential participation in the EU association is low. This is attributed to Ukraine's objective lag behind the EU members in most factors, underscoring the necessity to actually strengthen positions in the components of global competitive power on the path to Ukraine's further integration into the European Union.

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EMPIRICAL TEST OF THE INTEGRATION POTENTIAL OF UKRAINE'S COMPETITIVE POWER IN THE EVENT OF POSSIBLE ACCESSION TO THE EU

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Modern integration priorities for Ukraine necessitate defining and measuring its competitive power (CP) as an EU candidate country. One of the key objectives of competitive policy is identifying the factors that can enhance Ukraine's CP, thereby strengthening its European integration potential. The study aims to develop a model that comprehensively examines the interdependence and interaction of parameters and components of Ukraine's CP across global, regional, and national dimensions in the event of its potential accession to the EU. To achieve this goal, the study utilizes a special statistical indicator, Spearman's rank correlation coefficient, as part of the regression-correlation analysis framework. The article provides an assessment of three main aspects: (1) Ukraine's competitive potential in both global and regional economic systems; (2) dependencies within datasets representing ratings, as well as the variance in ranks of factor values (one of the components of the global CP index) and performance characteristics; (3) the reserve competitive advantages of Ukraine, which are evaluated by comparing actual and potentially possible values of the rank correlation coefficients of the components of the global CP index and its integral value. The calculation results indicate that Ukraine's CP at the time of potential EU participation is low, primarily due to Ukraine lagging behind the EU members across a multitude of factors. This underscores the necessity for not only formal accession and legal unification but also a series of comprehensive reforms to attain tangible competitive advantages from participation in this integration association.

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